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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/755,988 | 01/13/2004 | Kenneth R. Cornwall | Cornwall 4.1-30 | 2256 |
| 21036 | 7590 | 10/04/2005 | EXAMINER | |
| MCLEOD & MOYNE, P.C. 2190 COMMONS PARKWAY OKEMOS, MI 48864 | | | HUYNH, KHOA D | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3751 | |

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/755,988

Applicant(s)

CORNWALL, KENNETH R.

Examiner

Khoa D. Huynh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 19-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/13/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I and claims 1-18 in the reply, filed on 07/20/05, is acknowledged.

Claims 19-24 are withdrawn from further consideration as being drawn to the non-elected invention.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the drain opening of the branch pipe as recited in claims 1 and 10, the second branch pipe with a drain opening as recited in claims 5 and 16, and the second vent opening and the second relief vent connected to the second branch pipe as recited in claims 6 and 17 must be shown or the features canceled from the claims. No new matter should be entered.

3. Figures 4 and 5 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate

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changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The disclosure is objected to because of the following informalities: page 3, line 21, the recitation "an air admittance value" should read -- an air admittance valve--.

Appropriate correction is suggested.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 5-12 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Leary (2127184) in view of Swaffield et al. (US 2004/0261870).

Regarding claims 1, 7 and 8, the O'Leary reference discloses a waste drainage system. The system includes a stack (2) having an inlet and an outlet, and a branch pipe (22) connected to the stack at a point space between the inlet and the outlet of the stack. The branch pipe has a drain opening (the opening

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disposed near element W) with a vent opening (where element 10 located) spaced between the stack and the drain opening. The system also includes an air admittance valve (10) connected to the branch pipe at the vent opening. The valve opens to allow air to enter the system and to equalize the pressure in the system (page 1, lines 30-55; page 2, lines 1-7).

The O'Leary reference DIFFERS in that it does not specifically include a relief vent as claimed. Attention, however, is directed to the Swaffield et al. reference which discloses a drainage system having a pressure relief valve (1) to equalize the pressure in the system. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the O'Leary reference by employing a pressure relief valve, in view of the teaching Swaffield et al., in order to allow air to enter the system and to equalize the negative pressure occurs in the system. Furthermore, such modification would also be considered a mere choice of an additional valve mechanism to preferably enhance the performance of the drainage system on the basis of its suitability for the intended use especially since the use of both an air admittance valve and an pressure relief valve, and their specific location and arrangement with respect to each other, in a drainage system is generally known in the art (see Swaffield et al. reference and the cited Uniform Plumbing Code document).

Regarding claims 5 and 6 (as best understood), the system also includes a second branch pipe (at 32, 34) connected to the stack. The second branch

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pipe has a drain opening and a second vent opening (at 36) with a second relief vent (element 10 near opening 36) is connected to the second branch pipe at the second vent opening.

Regarding claim 9, the modified O'Leary reference DIFFERS in that it does not specifically disclose that the stack has a height of at least 480 inches as claimed. It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ such height for the stack since discovering an optimum value for the height of a stack of a result effective variable involves only routine skill in the art especially since it is known that the maximum height of the stack is 50 feet (see the cited Uniform Plumbing Code document).

Claims 10-12 recite limitations that are similar to the limitations of claims 1, 7 and 8 which have been rejected as discussed supra.

Claims 16-18 recite limitations that are similar to the limitations of claims 5, 6 and 9 which have been rejected as discussed supra.

7. Claims 2-4 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over the modified O'Leary (as discussed above) in view of Cornwall (6795987).

Regarding claim 2, the O'Leary reference DIFFERS in that it does not specifically disclose that the relief vent has a flexible valve member as claimed. Attention, however, is directed to the Cornwall reference which discloses a drainage system having a valve (10) with a flexible member (about 16, 16C, 16B). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the O'Leary reference by

employing a valve having a flexible member in view of the teaching Cornwall.

Such modification would be considered a mere choice of a preferred vent valve on the basis of its suitability for the intended use especially since applicant also admitted that the vent valve can be of any type of valve well known in the art (specification, page 6, paragraph [0020]).

Regarding claim 3, the (flexible) valve member has a first end (about 12) and a second end (about 16B), wherein in a normal position, the second end of the valve member is closed (Fig. 2 of Cornwall).

Regarding claim 4, the (flexible) valve member has a first end (about 12) and a second end (about 16B) with a flexible side wall extending therebetween forming an inner passageway that is, in a normal position, tapered in cross-section from the first end toward the second end. The flexible side wall adjacent the second end is curled. When air is entered the inner passageway, the flexible sidewall is uncurled to allow air to exit the second end.

Claims 13-15 recite limitations that are similar to the limitations of claims 2-4 which have been rejected as discussed supra.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Convery and Kletzsch were cited to show a drainage system having pressure relief vents. Wentzel and Luff et al. were cited to show a sanitary tee for a plumbing system.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khoa D. Huynh whose telephone number is (571) 272-4888. The examiner can normally be reached on M-F (7:00-3:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on (571) 272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Khoa D. Huynh', with a horizontal line underneath.

Khoa D. Huynh
Primary Examiner
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HK
09/30/2005